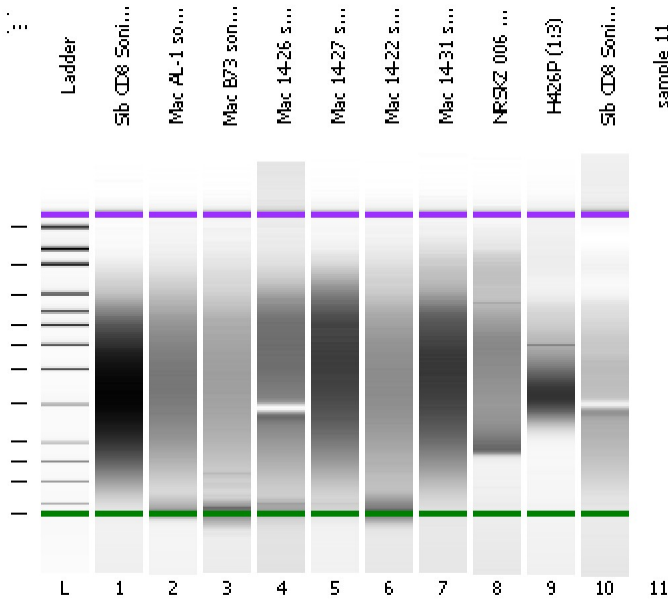


Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE13701086 Firmware: C.01.069
 Serial#: DE13701086 Type: G2938B

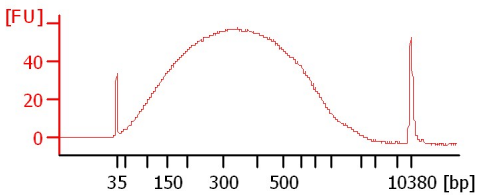
Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy
 Assay Class: High Sensitivity DNA Assay
 Version: 1.03
 Assay Comments: Copyright © 2003-2010 Agilent Technologies

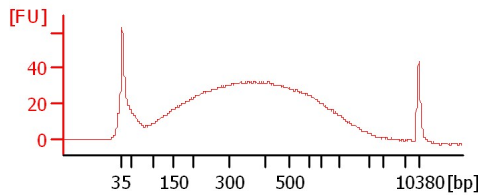
Chip Information:

Chip Lot #:
 Reagent Kit Lot #:
 Chip Comments:

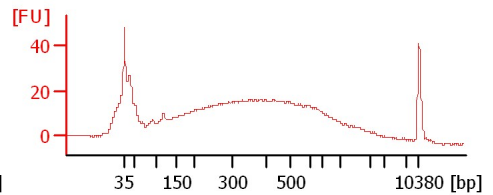
Sib CD8 Soni 75 sec



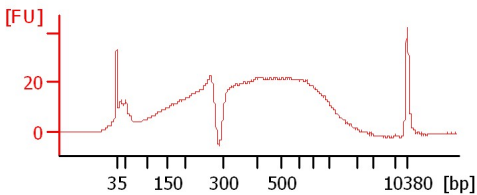
Mac AL-1 soni 55 sec (1:5)



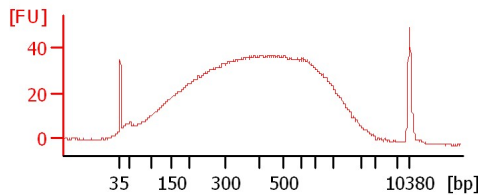
Mac B73 soni 55 sec (1:5)



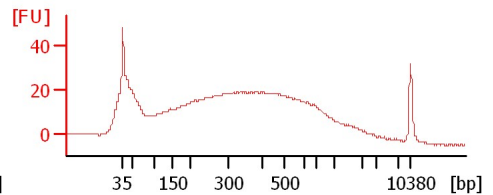
Mac 14-26 soni 55 sec (1:5)



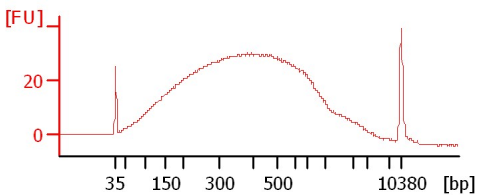
Mac 14-27 soni 55 sec (1:5)



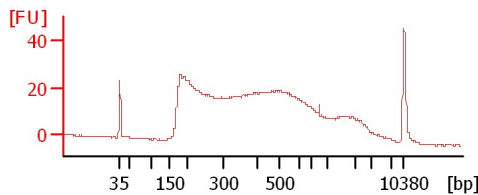
Mac 14-22 soni 55 sec (1:5)



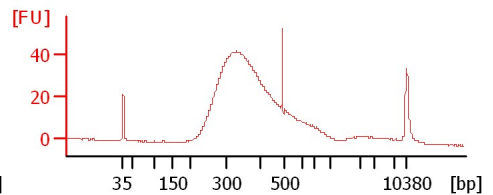
Mac 14-31 soni 55 sec (1:5)



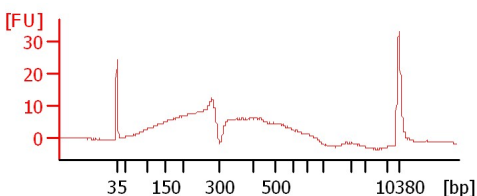
NRSKZ 006 4-13-16



H426P (1:3)



Sib CD8 Soni 75 sec



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
Modified: 4/13/2016 1:14:52 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Sib CD8 Soni 75 sec		<input type="checkbox"/>	✓			
Mac AL-1 soni 55 sec (1:5)		<input type="checkbox"/>	✓			
Mac B73 soni 55 sec (1:5)		<input type="checkbox"/>	✓			
Mac 14-26 soni 55 sec (1:5)		<input type="checkbox"/>	✓			
Mac 14-27 soni 55 sec (1:5)		<input type="checkbox"/>	✓			
Mac 14-22 soni 55 sec (1:5)		<input type="checkbox"/>	✓			
Mac 14-31 soni 55 sec (1:5)		<input type="checkbox"/>	✓			
NRSKZ 006 4-13-16		<input type="checkbox"/>	✓			
H426P (1:3)		<input type="checkbox"/>	✓			
Sib CD8 Soni 75 sec		<input type="checkbox"/>	✓			
sample 11		<input type="checkbox"/>				
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
Modified: 4/13/2016 1:14:52 PM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 12
Minimum Visible Range [s] : 32
Maximum Visible Range [s] : 138
Start Analysis Time Range [s] : 33
End Analysis Time Range [s] : 137.5
Ladder Concentration [pg/μl] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/μl] : 125
Upper Marker Concentration [pg/μl] : 75
Used Upper Marker for Quantitation
Standard Curve Fit is Point to Point
Show Data Aligned to Lower and Upper Marker

Integrator Settings

Integration Start Time [s] : 33.05
Integration End Time [s] : 137
Slope Threshold : 0.8
Height Threshold [FU] : 5
Area Threshold : 0.1
Width Threshold [s] : 0.6
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

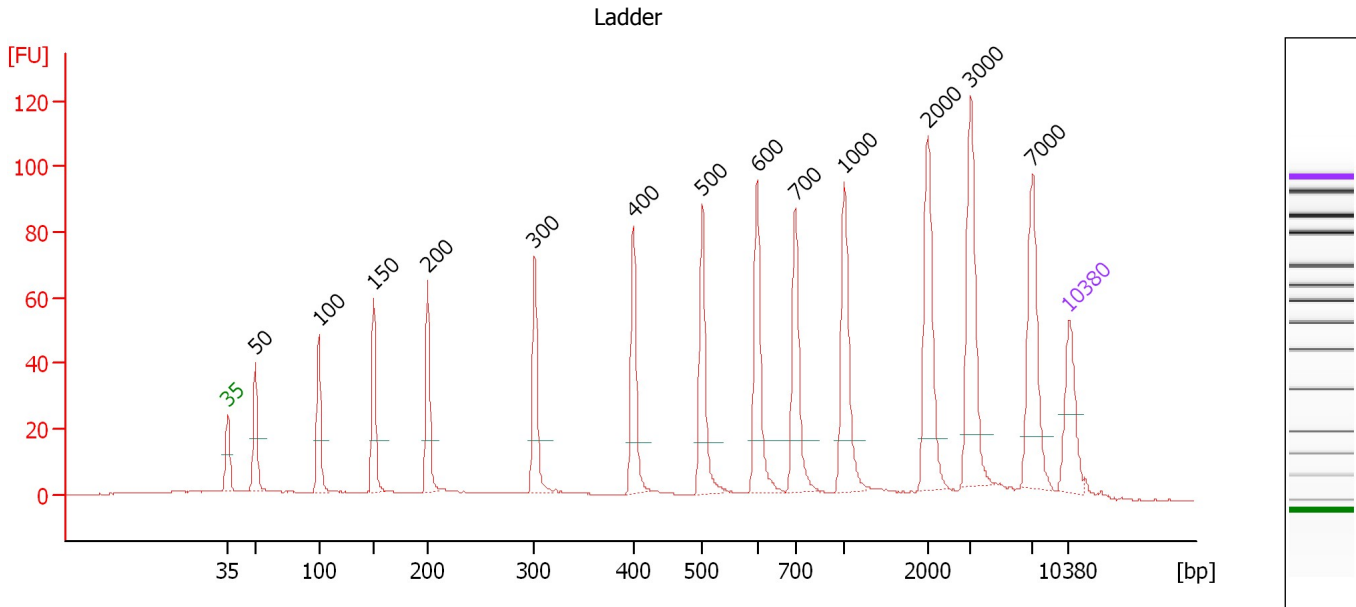
Ladder

Ladder Peak	Size	Area
1	35	160
2	50	210
3	100	208
4	150	221
5	200	242
6	300	270
7	400	305
8	500	306
9	600	336
10	700	321
11	1000	366
12	2000	413
13	3000	411
14	7000	400
15	10380	214

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

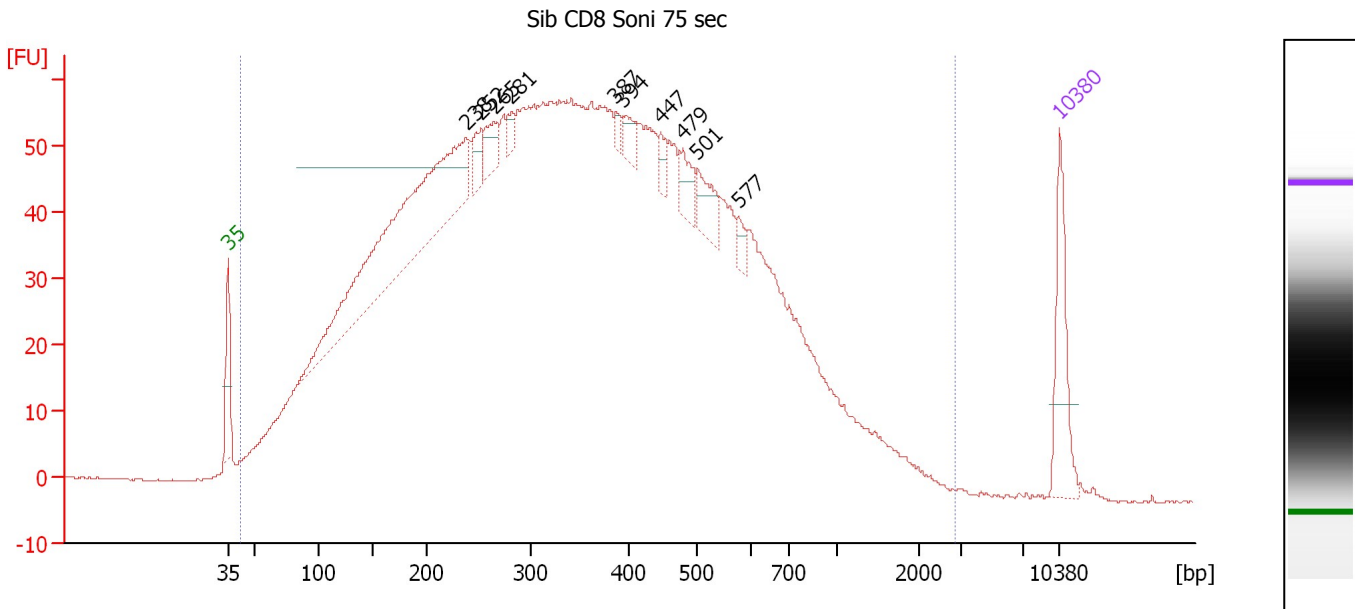
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.26
3	100	150.00	2,272.7	Ladder Peak	50.55
4	150	150.00	1,515.2	Ladder Peak	55.12
5	200	150.00	1,136.4	Ladder Peak	59.65
6	300	150.00	757.6	Ladder Peak	68.52
7	400	150.00	568.2	Ladder Peak	76.73
8	500	150.00	454.5	Ladder Peak	82.51
9	600	150.00	378.8	Ladder Peak	87.03
10	700	150.00	324.7	Ladder Peak	90.23
11	1,000	150.00	227.3	Ladder Peak	94.31
12	2,000	150.00	113.6	Ladder Peak	101.24
13	3,000	150.00	75.8	Ladder Peak	104.79
14	7,000	150.00	32.5	Ladder Peak	109.98
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Sib CD8 Soni 75 sec

Number of peaks found: 10 Corr. Area 1: 3,011.1
 Noise: 0.1

Peak table for sample 1 : Sib CD8 Soni 75 sec

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	238	449.08	2,858.0		63.03
3	252	31.27	187.8		64.28
4	265	38.93	222.7		65.41
5	281	15.27	82.3		66.84
6	387	9.68	37.9		75.64
7	394	24.57	94.4		76.27
8	447	15.29	51.8		79.46
9	479	32.09	101.5		81.30
10	501	42.17	127.5		82.56
11	577	14.27	37.5		85.97
12	10,380	75.00	10.9	Upper Marker	113.00

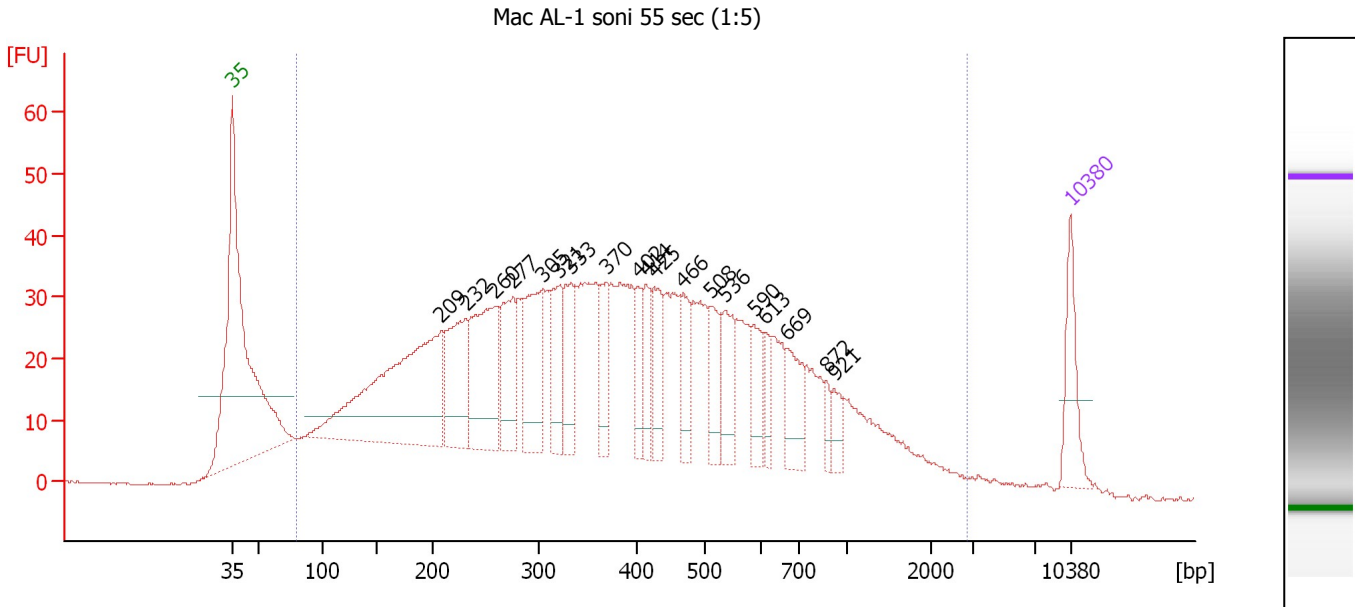
Region table for sample 1 : Sib CD8 Soni 75 sec

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
42	2,830	395	3,011.1	49,989.6	7,523.48	100	69.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Mac AL-1 soni 55 sec (1:5)

Number of peaks found: 19 Corr. Area 1: 1,743.2
 Noise: 0.1

Peak table for sample 2 : Mac AL-1 soni 55 sec (1:5)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	209	627.94	4,552.3		60.44
3	232	218.44	1,426.2		62.49
4	260	282.50	1,648.6		64.94
5	277	150.07	821.8		66.45
6	305	204.80	1,018.8		68.90
7	321	118.89	560.5		70.28
8	333	102.56	466.2		71.26
9	370	81.67	334.8		74.24
10	402	57.78	217.6		76.87
11	414	70.81	259.3		77.53
12	425	86.45	307.9		78.20
13	466	73.00	237.2		80.56
14	508	73.28	218.5		82.87
15	536	89.03	251.8		84.12
16	590	66.85	171.8		86.57
17	613	38.70	95.6		87.46
18	669	82.15	186.1		89.24
19	872	21.24	36.9		92.57
20	921	29.16	48.0		93.24
21	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 2 : Mac AL-1 soni 55 sec (1:5)

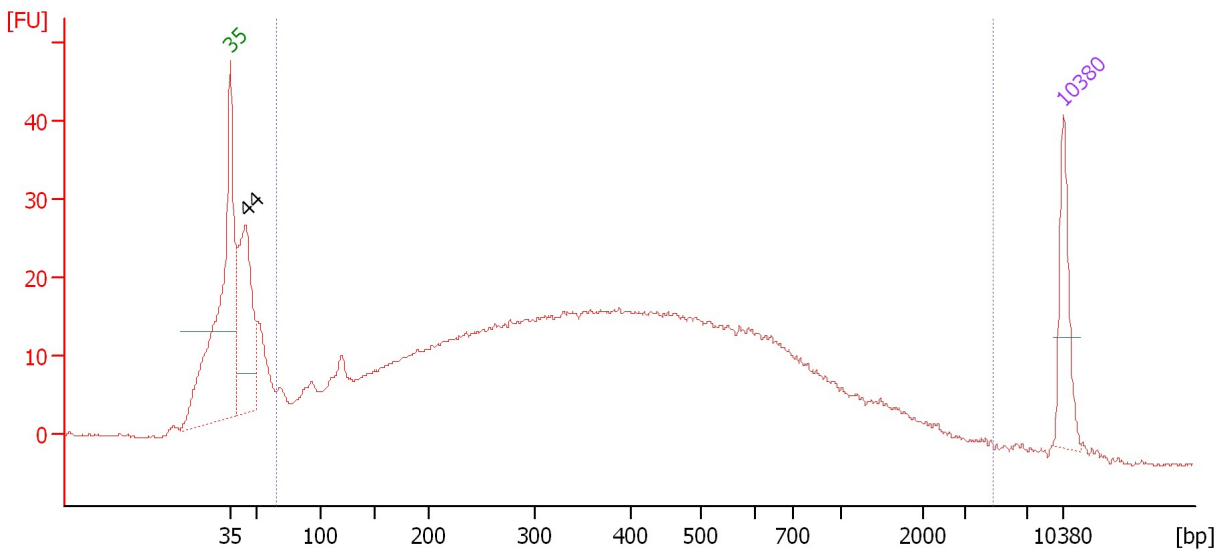
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
79	2,881	465	1,743.2	30,125.0	5,244.28	99	78.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...

Mac B73 soni 55 sec (1:5)



Overall Results for sample 3 : Mac B73 soni 55 sec (1:5)

Number of peaks found: 1 Corr. Area 1: 976.7
 Noise: 0.2

Peak table for sample 3 : Mac B73 soni 55 sec (1:5)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	44	334.83	11,632.7		44.30
3	10,380	75.00	10.9	Upper Marker	113.00

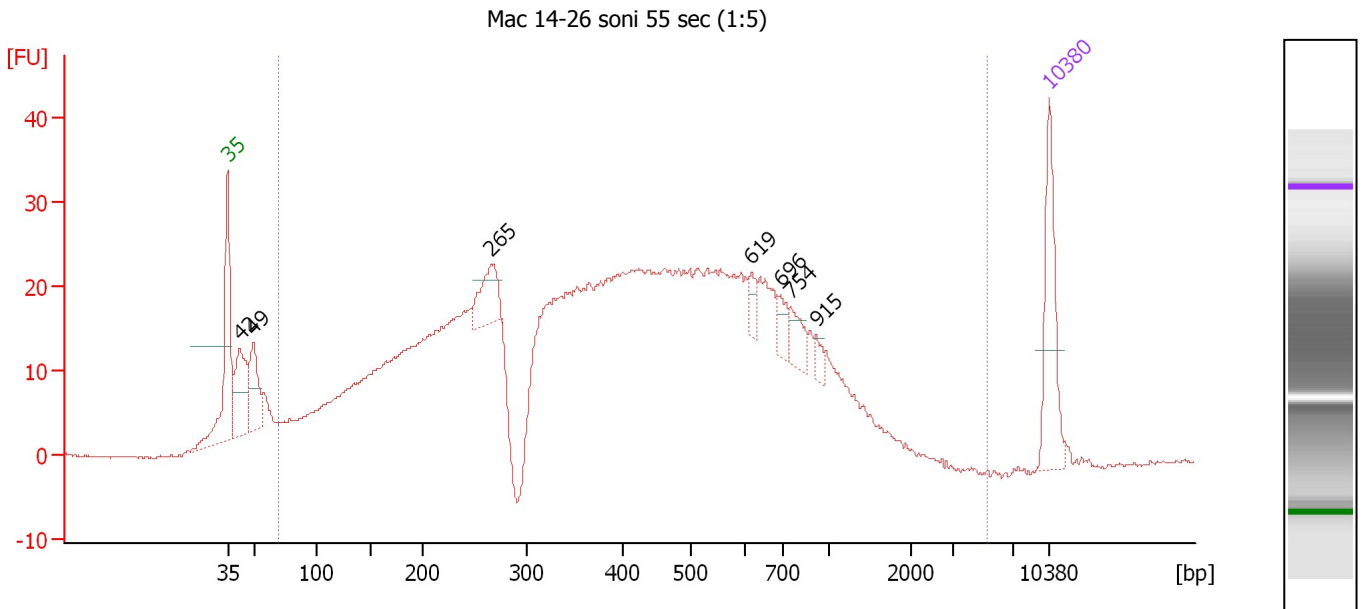
Region table for sample 3 : Mac B73 soni 55 sec (1:5)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
66	4,823	518	976.7	20,438.9	3,306.88	87	99.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Mac 14-26 soni 55 sec (1:5)

Number of peaks found: 7 Corr. Area 1: 1,058.0
 Noise: 0.1

Peak table for sample 4 : Mac 14-26 soni 55 sec (1:5)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	42	105.38	3,808.5		44.04
3	49	78.32	2,399.9		45.18
4	265	61.14	349.2		65.44
5	619	14.98	36.6		87.65
6	696	19.37	42.2		90.11
7	754	25.15	50.5		90.97
8	915	10.47	17.3		93.15
9	10,380	75.00	10.9	Upper Marker	113.00

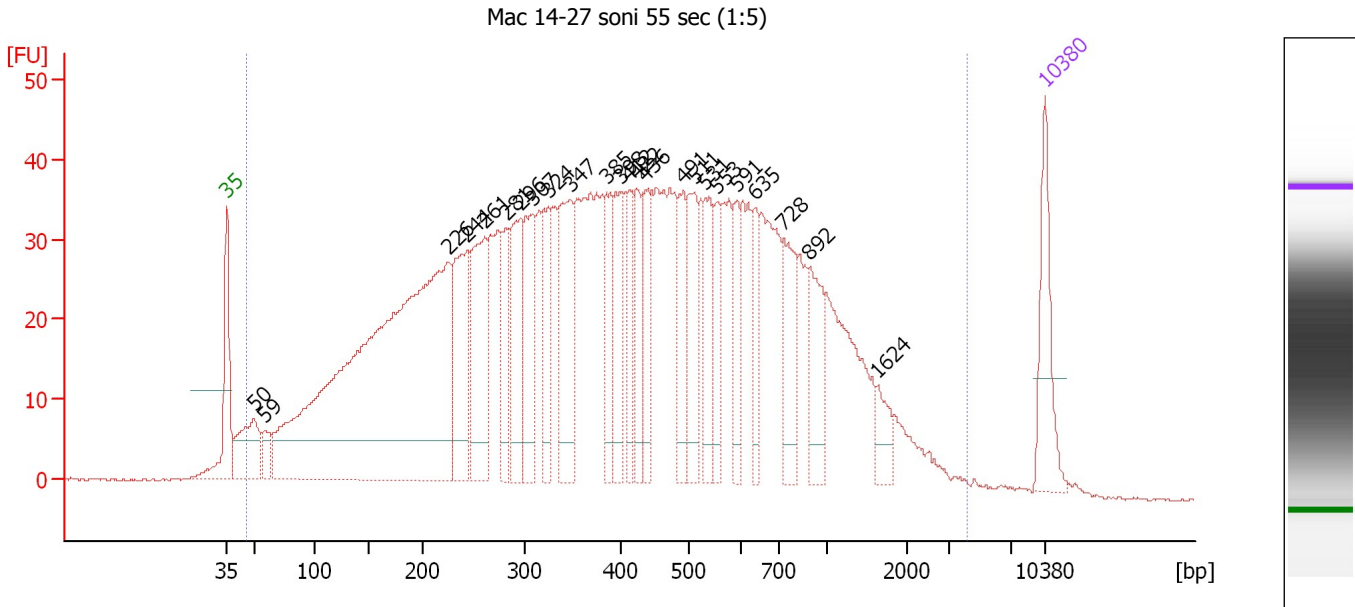
Region table for sample 4 : Mac 14-26 soni 55 sec (1:5)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
70	5,284	466	1,058.0	17,987.7	3,194.36	93	62.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Mac 14-27 soni 55 sec (1:5)

Number of peaks found: 24 Corr. Area 1: 2,054.0
 Noise: 0.1

Peak table for sample 5 : Mac 14-27 soni 55 sec (1:5)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	114.22	3,450.7		45.28
3	59	28.92	739.9		46.24
4	226	1,207.95	8,109.9		61.93
5	244	187.14	1,161.3		63.57
6	261	189.85	1,103.8		65.03
7	281	77.67	418.6		66.85
8	296	136.96	702.2		68.13
9	307	130.16	642.7		69.08
10	324	87.53	409.3		70.50
11	347	169.72	741.5		72.37
12	385	80.20	316.0		75.47
13	398	88.43	336.3		76.61
14	412	67.28	247.4		77.43
15	422	76.98	276.2		78.02
16	436	86.46	300.6		78.80
17	491	81.95	252.8		81.99
18	511	99.00	293.7		82.99
19	531	80.79	230.6		83.91
20	553	55.95	153.3		84.91
21	591	52.97	135.7		86.64
22	635	55.07	131.4		88.15
23	728	91.04	189.5		90.61
24	892	81.93	139.1		92.84
25	1,624	29.03	27.1		98.64

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...

... Peak table for sample 5 : Mac 14-27 soni 55 sec (1:5)

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 5 : Mac 14-27 soni 55 sec (1:5)

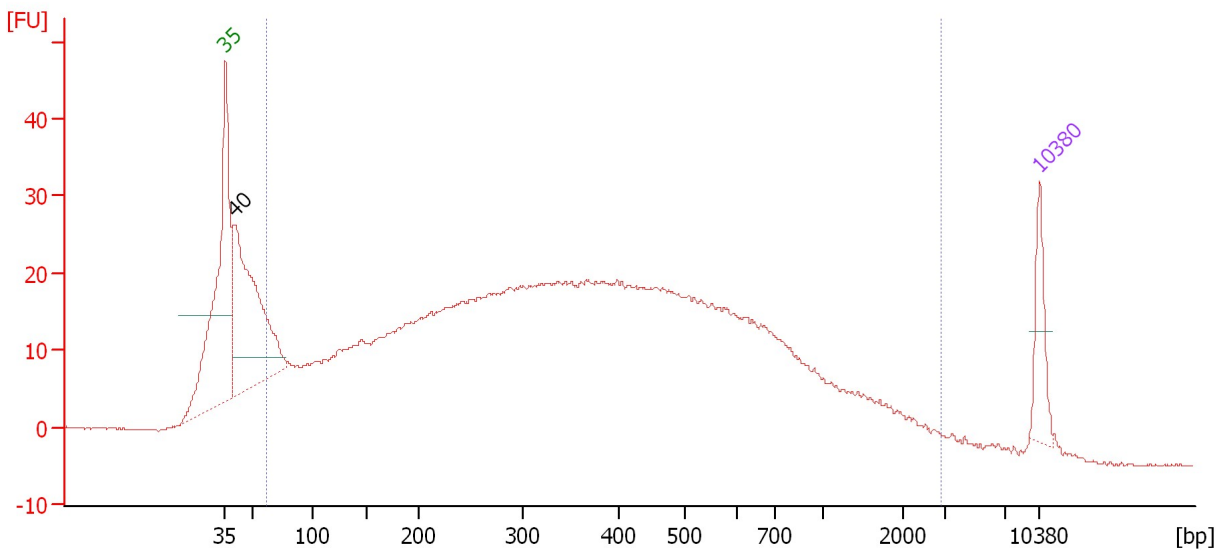
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ μ l]	% of Total	Size distribution in CV [%]
46	4,225	508	2,054.0	33,027.1	5,403.90	99	82.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...

Mac 14-22 soni 55 sec (1:5)



Overall Results for sample 6 : **Mac 14-22 soni 55 sec (1:5)**

Number of peaks found: 1 Corr. Area 1: 1,201.1
Noise: 0.1

Peak table for sample 6 : **Mac 14-22 soni 55 sec (1:5)**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	40	729.13	27,506.1		43.78
3	10,380	75.00	10.9	Upper Marker	113.00

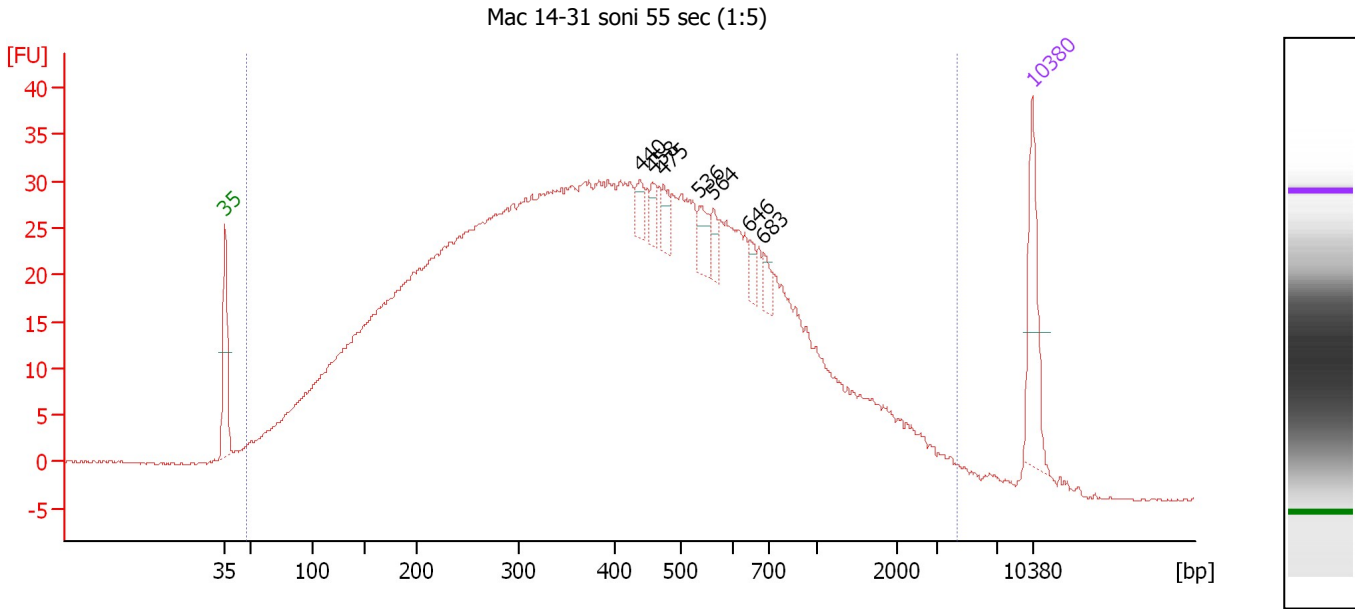
Region table for sample 6 : **Mac 14-22 soni 55 sec (1:5)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
61	2,948	471	1,201.1	37,170.6	5,418.96	89	87.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Mac 14-31 soni 55 sec (1:5)

Number of peaks found: 7 Corr. Area 1: 1,670.1
 Noise: 0.1

Peak table for sample 7 : Mac 14-31 soni 55 sec (1:5)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	440	18.90	65.1		79.02
3	458	17.24	57.0		80.08
4	475	22.55	72.0		81.05
5	536	28.66	81.0		84.15
6	564	16.75	45.0		85.40
7	646	14.33	33.6		88.50
8	683	16.85	37.4		89.70
9	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 7 : Mac 14-31 soni 55 sec (1:5)

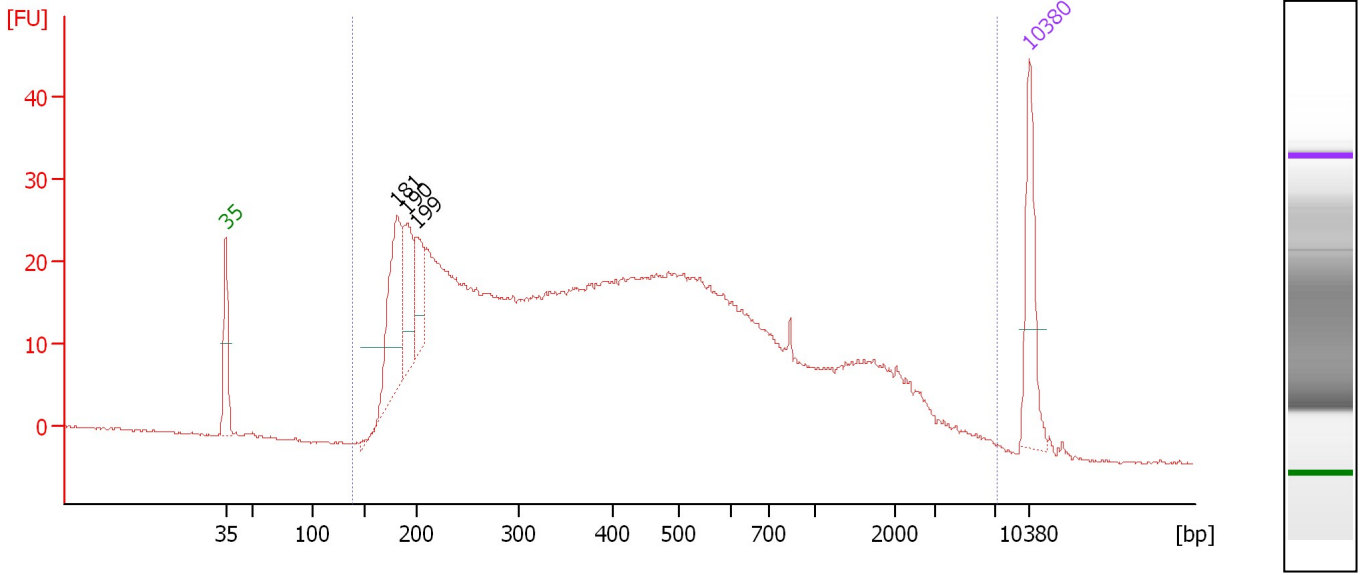
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
47	4,318	507	1,670.1	36,137.7	6,088.61	99	92.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...

NRSKZ 006 4-13-16



Overall Results for sample 8 : NRSKZ 006 4-13-16

Number of peaks found: 3 Corr. Area 1: 1,056.9
Noise: 0.1

Peak table for sample 8 : NRSKZ 006 4-13-16

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	181	176.91	1,482.3		57.91
3	190	89.77	715.6		58.75
4	199	67.70	514.6		59.58
5	10,380	75.00	10.9	Upper Marker	113.00

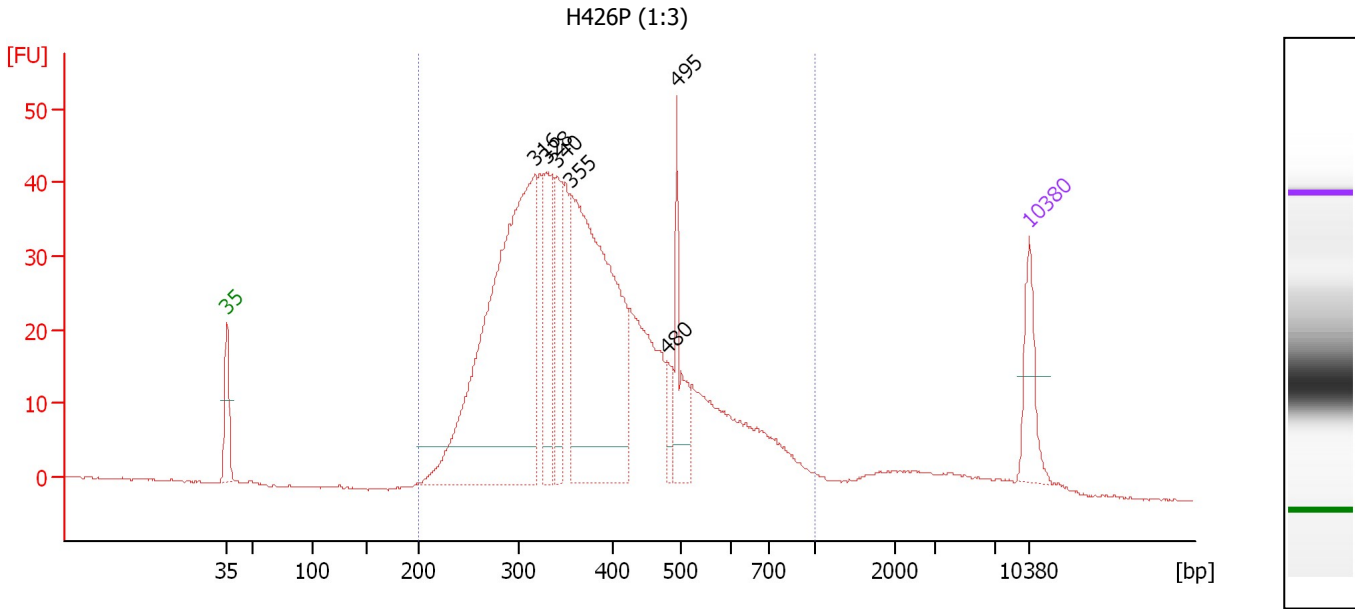
Region table for sample 8 : NRSKZ 006 4-13-16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
138	7,146	653	1,056.9	14,210.3	3,062.85	100	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : H426P (1:3)

Number of peaks found: 6 Corr. Area 1: 920.6
 Noise: 0.1

Peak table for sample 9 : H426P (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	316	1,108.29	5,314.0		69.84
3	328	188.01	868.7		70.81
4	340	139.44	621.8		71.79
5	355	812.31	3,471.7		73.00
6	480	41.18	129.9		81.37
7	495	122.43	374.8		82.21
8	10,380	75.00	10.9	Upper Marker	113.00

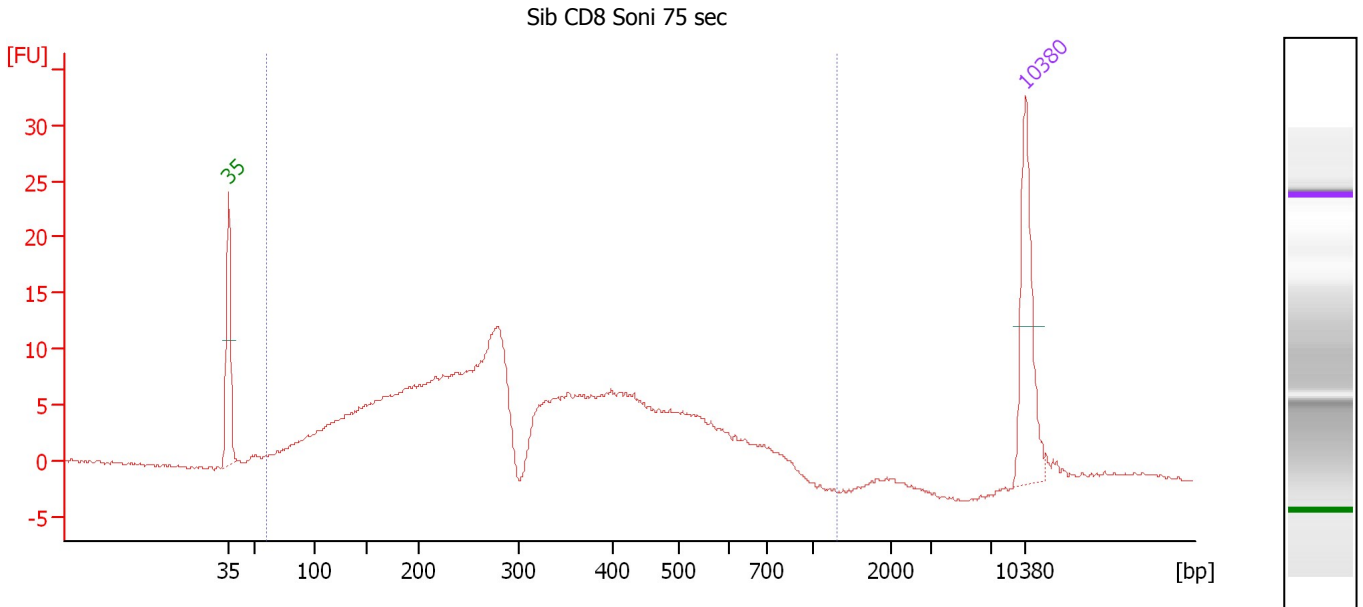
Region table for sample 9 : H426P (1:3)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	393	920.6	14,722.2	3,433.51	95	31.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Sib CD8 Soni 75 sec

Number of peaks found: 0 Corr. Area 1: 352.3
 Noise: 0.2

Peak table for sample 10 : Sib CD8 Soni 75 sec

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

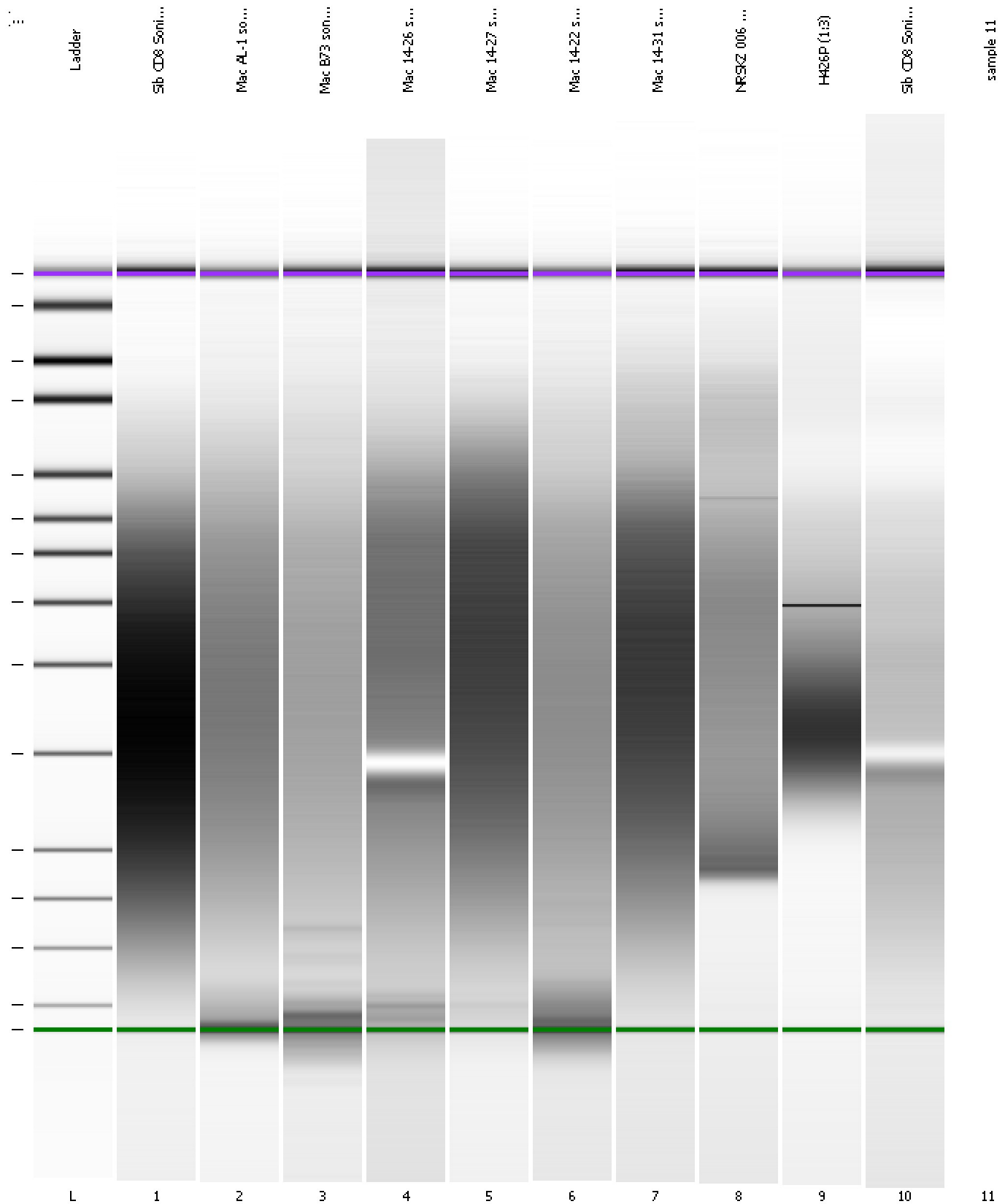
Region table for sample 10 : Sib CD8 Soni 75 sec

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
59	1,317	324	352.3	8,603.9	1,253.74	98	47.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
Modified: 4/13/2016 1:14:52 PM

Gel Image

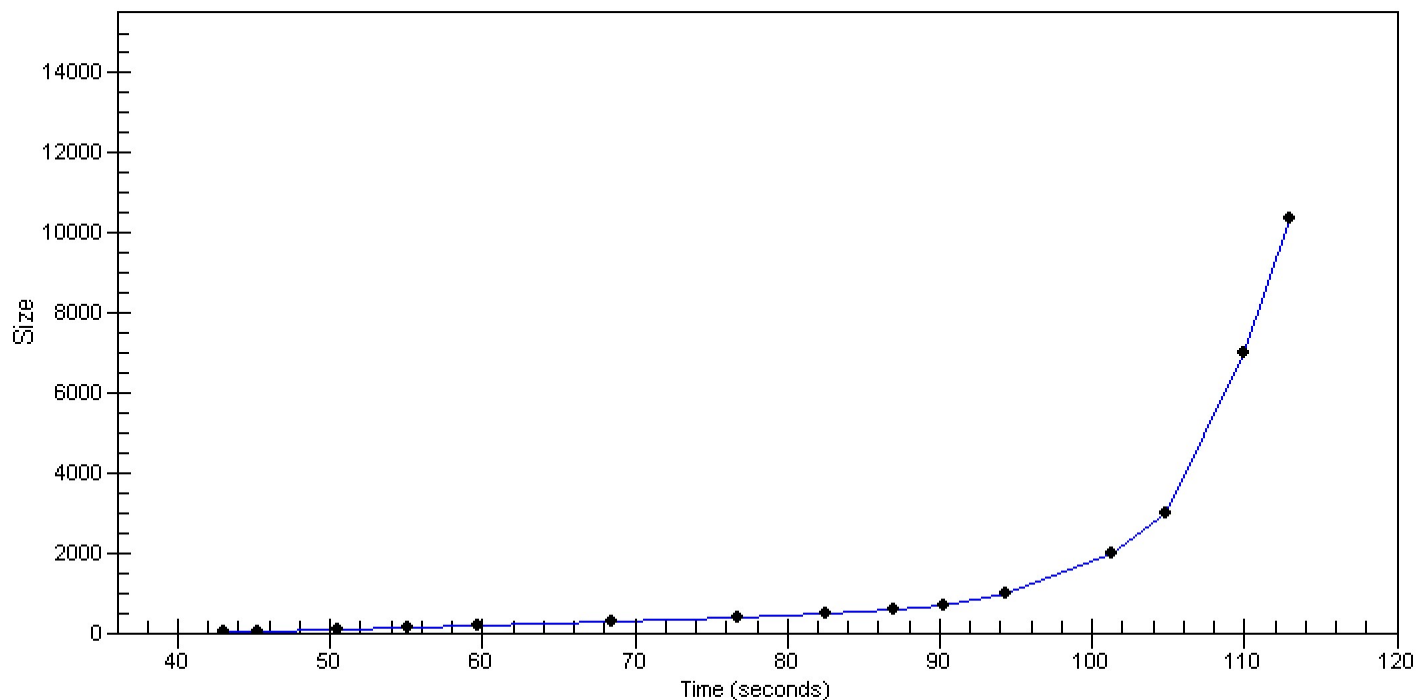


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
Modified: 4/13/2016 1:14:52 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
Modified: 4/13/2016 1:14:52 PM

Invalid Samples

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad

Created: 4/13/2016 12:14:53 PM
 Modified: 4/13/2016 1:14:52 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 11)		Instrument	Run		4/13/2016 12:53:20 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-04-13\2016-04-13_002.xad)		Instrument	Run		4/13/2016 12:14:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/13/2016 12:14:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/13/2016 12:14:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/13/2016 12:14:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/13/2016 12:14:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/13/2016 12:14:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/13/2016 12:14:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1